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TR 84-20

WESTERN MARYLAND POWER PLANT SITING STUDY

BIOLOGICAL CHARACTERIZATION OF CANDIDATE SITES: FINAL ASSESSMENT

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FOREWORD

This final report entitled "Western Maryland Power Plant Siting Study: Biological Characterization of Candidate Sites: Final Assessment" was prepared by F. Jacobs, J. Himel, R. Cummins, and S. Weisberg of Martin Marietta Environmental Systems for Mr. James M. Teitt, Administrator, Site Acquisition and Water Quality Certification, Maryland Power Plant Siting Program, Maryland Department of Natural Resources. All work was performed under DNR contract nos. P24-84-03 and P35-85-01. The study period was from July 1, 1983 through June 30, 1984. The publication date of this report is October 1984. The purpose of this study was to provide detailed biological characterizations of the specific areas being considered for plant facilities and solid waste disposal within the PPSP candidate sites WP-26, WP-14, and FP-12. This report incorporates information contained in the earlier report:

Jacobs, F., S. Weisberg, R. Cummins, and J. Himel. 1984. Biological assessment of Western Maryland Power Plant candidate areas: Phase I characterization.

ABSTRACT

Three locations in western Maryland are being considered as potential candidate sites for future construction of a 1200-1800 MWe coal-fired power plant. This report provides a detailed biological characterization of each site and assesses potential terrestrial and aquatic impacts associated with plant construction and operation. This assessment considers possible impacts on geomorphology, vegetation, wildlife, water quality, and nearby aquatic biota. Relevant information contained in a Phase I document produced earlier under this contract, has been incorporated into this final report.

A comparison of the impacts to the terrestrial and aquatic biota on each site indicates that overall biological impacts would be greatest at site WP-26 and least at site FP-12.

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I. INTRODUCTION

This report is part of a study by the Maryland Power Plant Siting Program to evaluate candidate sites in Western Maryland for construction of a 1200-1800 MWe coal-fired power plant. This evaluation includes a biological characterization and assessment of each candidate site.

Phase I of this study involved the biological characterization of six candidate sites by Martin Marietta Environmental Systems, providing qualitative descriptions of the terrestrial and aquatic flora and fauna occurring or expected to occur in each area based on published references, data from earlier studies, and personal communications. Potentially sensitive biota and habitats expected on each candidate area and along the adjacent sections of the Potomac River were identified.

Three of the six candidate sites were eliminated from further consideration due to air quality licensing restrictions and other site-related factors (e.g., transmission system and solid waste disposal costs) (DNR 1983). Preliminary engineering evaluations and site plans were developed separately by the Bechtel Power Corporation for the remaining three candidate sites: WP-26, WP-14, and FP-12 (Bechtel Power Corporation, 1984). The plant design considered in evaluating impacts includes a closed-cycle cooling system that will draw from and discharge to the Potomac River.

This report incorporates the Phase I qualitative descriptions of the terrestrial and aquatic flora and fauna occurring or expected to occur on sites WP-26, WP-14, and FP-12, as part of a detailed biological characterization of each site. The evaluation focuses on the specific areas being considered for plant facilities and solid waste disposal within each candidate site. Field observations, soil maps, and aerial photos are used to confirm the presence of specific terrestrial and aquatic biota, and to identify potential impacts. Conclusions regarding the overall impacts of power plant construction and operation on the biotic resources of each site are presented.

Site Locations

The three candidate sites, depicted in Fig. I-1, are all located in the Midlands Region of Maryland. This region, as described by Brown and Brown (1972), extends from the Coastal Plain to the Allegheny Mountains. The terrain east of the Catoctin is rolling Piedmont mountains; west of the Catoctin

Mountains, a series of ridges and valleys predominates. Land use in the rolling terrain of the Piedmont is primarily agricultural, with forest cover restricted to slopes, ridges, and stream valleys. All sites fall within the Potomac River watershed.

Site WP-26 is located one mile west of Williamsport, MD, in Washington County. The area being considered for plant facilities and solid waste disposal is bounded by State Route 68 on the north and east, Bottom Road on the west, and the Western Maryland Railroad on the south.

Site WP-14, also in Washington County, is located five miles north of Williamsport, MD. The area being considered for plant facilities and solid waste disposal is bounded by State Route 40 on the north, State Route 63 on the east, Kemps Mill Road to the south, and Conococheaque Creek to the west.

Site FP-12 is located one mile east of Point of Rocks, MD, in Frederick County. The site being considered for plant facilities and solid waste disposal is bounded by the Baltimore and Ohio Railroad on the north and west, Pleasant View Road on the east, and State Route 28 on the south.

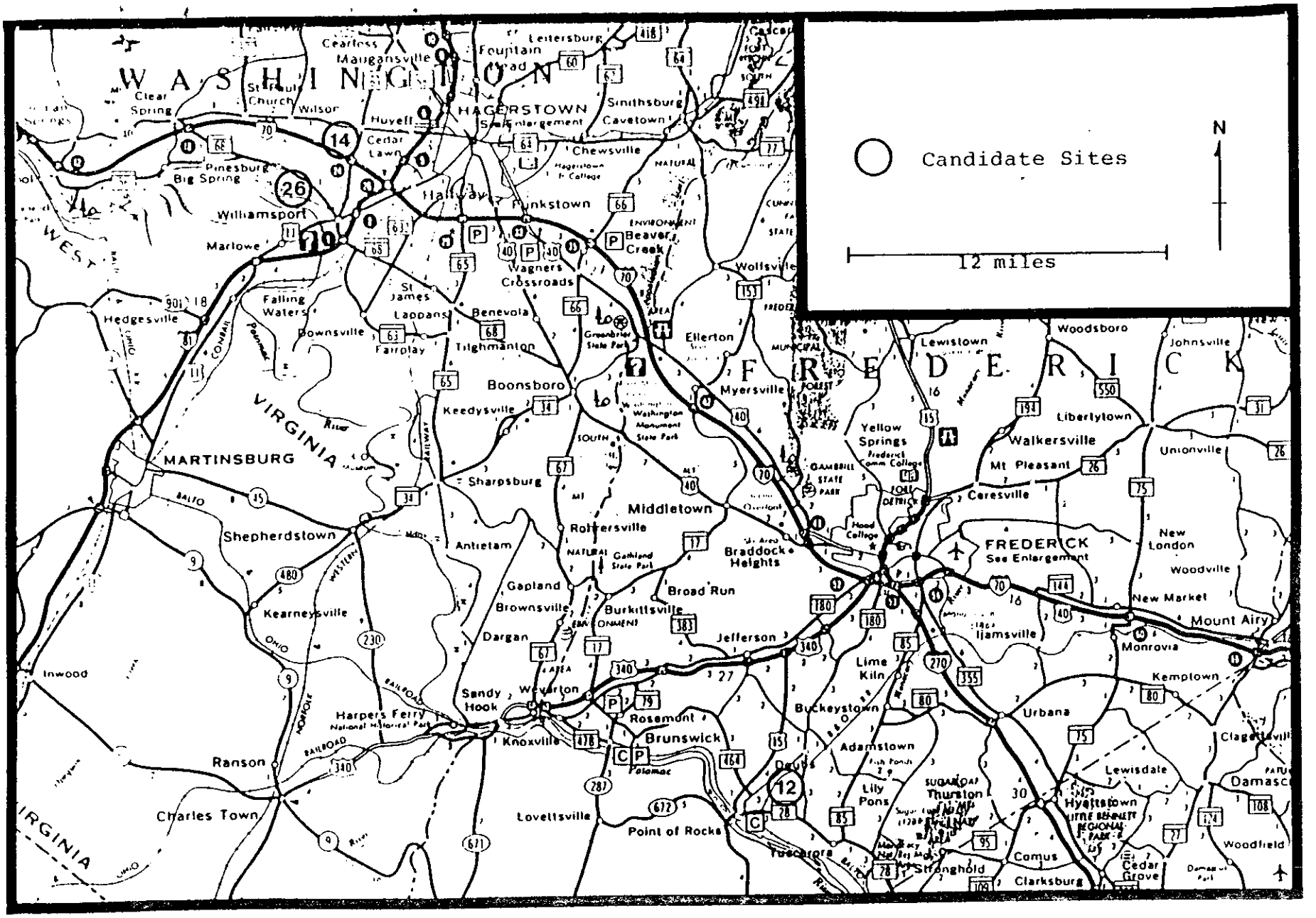

Figure I-1. Location of Power Plant Siting Program candidate sites WP-26, WP-14, and FP-12